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AGRICULTURAL MEMORANDUM NO 545

Cattle Respiratory Disease

L P Smith

Previous analyses carried out by Dr P Nicholson at Weybridge involving 12 farms near Reading found evidence of two 'cold stress' days before an outbreak, defined as being when the fall in temperature day max - night min was 1.5 times the mean monthly diurnal range and the minimum was zero or below.

Calling these days C_1 and C_2, then
the time interval between them was 15 ± 2 days
and the time interval between C_2 and disease symptoms was 9 ± 4 days

An outbreak at Gleadthorpe on 6 January (four calves affected by 8th, two more on 9th and one final case on 10th.)

The external December weather at the EHF indicated

C_1 on 12 December (minimum 0.3) or 16 December (minimum -1.5)

C_2 on 29 December

ie $C_1 - C_2 = 13$ (or 17)

C_2-symptoms = 8 days

This evidence does not contradict the previous findings and supports the hypothesis that there should be two cold stress days separated by the virus incubation period.

Any comments or suggestions on this paper should be referred to the author.

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April 1973